

REMARKS

Claims 1-9, 11, 15-16, and 19-20 are presented for examination. The Examiner rejected Claims 1, 2, 4-6, 8-9, 11, 15, 19 and 20 under 35 U.S.C. §103(a), as allegedly being unpatentable over U.S. Patent No. 4,452,374 to Hitchcock et al. (“Hitchcock et al.”) in view of U.S. Patent No. 4,044,187 to Kremkau (“Kremkau”). Claims 1-9, 16, 19 and 20 stand rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over U.S. Patent No. 5,582,319 to Heyes et al. (“Heyes et al.”) in view of Kremkau. Applicants respectfully traverse because (1) the prior art references fail to teach or suggest all of the claimed limitations.

Independent Claims 1, 16, 19, and 20 have been amended to more clearly define the invention. Each independent claim now requires “applying to a metal sheet a top layer comprising a fully polymerized or nearly fully polymerized polymer.” (Claims 1, 19 and 20) or “applying to an aluminum alloy sheet a cured polymer top layer comprising a fully polymerized maleic anhydride modified polyolefin” (Claim 16), and directly exposing the top layer to radiation. Support for this feature can be found in paragraph 24 of the specification. This feature is not disclosed or suggested by the cited prior art references.

The §103 rejections of Claims 1, 2, 4-6, 8-9, 11, 15, 19 and 20 are traversed because the prior art references do not teach or suggest all of the claimed limitations. Applicants submit that the applied references fail to render Applicants’ claimed inventions unpatentable, since none of the applied prior art, either alone or in combination, teach or suggest applying to a metal sheet a top layer comprising a fully polymerized or nearly fully polymerized polymer and directly exposing the top layer to radiation, wherein said irradiating is carried out at a sufficient

energy and for a sufficient time to sufficiently embrittle said polymer in said coating thereby to improve resistance of said coating to feathering and angel hair formation.

Referring to Page 3 of the present Office Action, the Examiner admits that “Hitchcock et al. does not teach scissioning polymer chains by irradiating the coating with electron beam to improve resistance to ‘feathering’ and ‘angel hair’ formation where the irradiating is carried out as a sufficient energy and for a sufficient time to embrittle the polymer in the coating.”

Referring to Pages 3 and 4 of the present Office Action, to meet the limitation of scissioning polymer chains by irradiating the coating to improve resistance to feathering and angel hair formation, the Examiner relies on Kremkau for disclosing a method for increasing bond strength, seal strength and dimensional stability of film laminates by irradiating a polyolefin using an electron beam dosage of about 2-20 megarads, forming a laminate, and then irradiating the entire laminate using an additional dosage between 2-20 megarads. Applicant would like to highlight that the laminate is formed by adding at least one uncross-linked polymeric layer to a cross-linked polymeric layer. (See Claim 1) Accordingly, Kremkau does not teach applying to a metal sheet a top layer comprising a fully polymerized or nearly fully polymerized polymer and directly exposing the top layer to radiation. Hitchcock also fails to teach this limitation. Accordingly, independent claims 1, 19, and 20 and the claims dependent thereon are patentably distinct from the combination of Hitchcock and Kremkau.

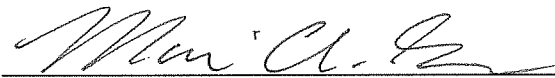
Claims 1-9 and 16 and 19-20 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Heyes et al. in view of Kremkau. Referring to Page 5 of the present Office Action, the Examiner admits that Heyes et al. fails to teach “scissioning the polymer chains by irradiating using electron beam to improve resistance to feathering and angel hair

formation.” Kremkau fails to fulfill the deficiencies in Heyes et al. for the same reasons
Kremkau fails to fulfill the deficiencies in Hitchcock et al. The above comments regarding
Kremkau are incorporate herein by reference. Therefore, since the combination of Heyes et al.
and Kremkau fail to teach or suggest each and every limitation recited in Claims 1, 16, 19 and
20, Applicants submit that the present §103 rejection has been obviated and respectfully request
withdrawal thereof.

Accordingly, the Examiner is respectfully requested to reconsider the application,
withdraw the rejections and issue an immediate favorable action thereon. If upon review of the
application, the Examiner is unable issue an immediate Notice of Allowance, the Examiner is
respectfully requested to telephone the undersigned attorney with a view towards resolving any
outstanding issues.

An early and favorable action is earnestly solicited.

Respectfully submitted,



Mauri A. Sankus, Esq.
Attorney for Applicants
Reg. No. 42,275
Alcoa Technical Center
Intellectual Property
100 Technical Drive
Building C
Alcoa Center, PA 15069
Tele. No. 724-337-4658
Fax No. 724-337-5959